3GPP TSG CN Plenary, Meeting #11   **Tdoc NP-010039**
Palm Springs, USA. 14th - 16th March 2001

Source:	**TSG_CN WG3**
Title:	**WID for Interworking between IM CN subsystem and IP networks.**
Agenda item:	**9.1**
Document for:	**APPROVAL**

For Document see next page:-

Work Item Description

Title: Interworking between IM CN subsystem and IP networks.

1 3GPP Work Area

	Radio Access
X	Core Network
	Services

2 Linked work items

- SIP call control for the IM subsystem (N1)
- Mapping of overall end to end QoS in each new interface
- End-to-end (re-)negotiation of QoS parameters (S2)
- Support of IP multimedia services (S1)
- An architecture for Call control and roaming to support IP-based multimedia services in UMTS (S2)

3 Justification

IP based multimedia services are a required feature of UMTS Release 5, which will include IP telephony and real time service support with end to end QoS negotiation.

The Release 5 architecture shall interwork with other wider IP networks through the GGSN and Gi reference point. This work item will define the solutions required to implement user plane and control plane interworking over this reference point. The interworking requirement may be especially true for IP based networks that do not support potential user plane aspects which are specific for the mobile networks (e.g. those selected for radio resource optimisation reasons).

4 Objective

The objective of this work item is to address the issue of interworking between the IM CN subsystem and external IP networks.

Significant goals are to define the functionality required within the GGSN and CSCF to enable this service interworking, and to establish the protocols over the Gi and Mm reference points.

The work item will address the issue of control plane interworking, for example, between SIP and H323 protocols to enable the IM CN subsystem to communicate with external IP networks that are based on the H.323 IP multimedia protocol.

The work item will address the issue of user plane interworking, for example, between the AMR codec used in the IM CN subsystem and other codec types used within external IP networks. This is required for H323 and also for SIP based external IP networks.

The areas addressed should encompass the transport protocol and the signalling issues for negotiation and mapping of bearer capabilities and QoS information.

5 Service Aspects

None identified.

6 MMI-Aspects

None identified.

7 Charging Aspects

None identified.

8 Security Aspects

None identified.

9 Impacts

Affects:	USIM	ME	AN	CN	Others
Yes				X	
No	X	X	X		
Don't know					

10 Expected Output and Time scale (to be updated at each plenary)

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
TS 29.162	"Interworking between IM CN subsystem and IP Networks"	CN3	CN1 SA4	CN#13 (Sept 01)	CN#14 (Dec 01)	Specifying Control Plane interworking between SIP and H323 protocols. Specifying User Plane interworking between AMR Codec and other codec types
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#		Comments
29.061		Interworking between the PLMN supporting GPRS and PDNs		CN#14 (Dec 01)		
24.228		Signalling flows for the IP multimedia call control based on SIP and SDP				Note - TS has not been presented at CN plenary, and is not currently under change control.

11 Work item rapporteurs

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12 Work item leadership

CN3

13 Supporting Companies

BT, Motorola, Siemens, Nortel Networks, Lucent Technologies

14 Classification of the WI (if known)

	Feature (go to 14a)
	Building Block (go to 14b)
X	Work Task (go to 14c)

14a The WI is a Feature: List of building blocks under this feature

N/A

14b The WI is a Building Block: parent Feature

N/A

14c The WI is a Work Task: parent Building Block

– End to end UMTS reservation and (re-)negotiation of QoS parameters
– Call control and roaming to support IP based multimedia services in UMTS
– Mapping of overall end to end QoS in each new interface